

## **Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)**

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***231-Z Glovebox***



***BC Control Area Excavation***

## Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation & Decommissioning (D&D) [R. E. Wilkinson],
- Waste Sites Remediation [B. H. Ford], and
- Reliability Projects [R. M. Nichols].

NOTE: Unless otherwise noted, all information contained herein is as of the end of July 2008.

## Notable Accomplishments

### Deactivation and Decommissioning

#### 231-Z Inventory Reduction

- Removed and packaged gloveboxes for shipment.
- IP-2s staged for shipment to Central Waste Complex (CWC).
- Completed Cell 5 chemical removal, sampling, and packaging activities.
- Sample transported to Waste Sampling and Characterization Facility (WSCF) for analysis; packaged waste staged on 90-day pad.
- Verified drain isolations and high-efficiency particulate air (HEPA) filter removal actions with RL nuclear safety lead.

#### BC Control Area

- Completed mobilization activities including the construction of a new survey station and Environmental Restoration Disposal Facility (ERDF) can liner installation station.
- Initiated excavation activities.
- Transferred 751 tons of waste/dirt to ERDF.

#### 200 North Area

- 200-CW-3 Remaining Sites Sampling and Analysis Plan (SAP) reviewed and approved by RL and the U.S. Environmental Protection Agency (EPA).
- 200-CW-3 Remaining Sites Remedial Action Work Plan (RAWP) sent to EPA for review.

#### U Plant Regional Closure Zone

- Updating U Plant Ancillary D&D RAWP Rev. 1.

#### Multi-Incremental Sampling (MIS)

- Completed site maps for 216-S-19 and UPR-200-E-56.
- Addressed RL and Washington State Department of Ecology (Ecology) comments on Draft A of the Sample Protocol Test SAP.
- Issued contract to conduct Biological/Cultural/Historical Review.

#### Waste Site Remediation

- Completed excavation of one-third of B-26 trench (completed July 17, 2008 ahead of schedule).
- Completed two 216-S-1/2 Crib direct pushes and initiated deep borehole for 216-A-5 Crib.
- Completed logging 200-CW-1 deep pushes and U Pond 1" internal diameter holes.
- Completed U Pond borehole field work and decommissioned seven deep direct pushes.
- Completed drilling and logging all but one identified pipelines in 200 East area.
- Obtained EPA agreement that no additional data required for 200-MW-1 mini data quality objective (DQO), pending results of 216-B-6 reverse well investigations.

## Notable Accomplishments, continued

### Reliability Projects

- RL approved the Memorandum of Agreement (MOA)/Treatment Plan for Project L-614, *Repeater Sites Safety Renovations*, on July 10, 2008.
  - MOA/Treatment Plan submitted to State Historical Preservation Office (SHPO) for approval.
- Initiated design on the 400 Area Facility Modifications.

## FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 88.3	\$ 73.7	\$ 14.6

## Schedule/Cost Performance (\$M)

Nuclear Facility D&D, Remainder of Hanford	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/CTD)
Current Period (Month)	\$8.5	\$8.3	\$6.5	-\$0.2	-2.5%	\$1.8	22.0%	\$80.3
Cumulative-to-Date (FY 2004-Present)	\$312.1	\$306.1	\$296.6	-\$5.9	-1.9%	\$9.5	3.1%	\$335.9

Numbers are rounded to the nearest \$0.1M.

### CTD Schedule Performance (-\$5.9M/-1.9%):

The unfavorable schedule variance (SV) for the D&D Project (-\$0.5M) is primarily due to the following:

- Delays in BC Control Area excavation associated with wind damage to the survey tent.
- 216-U-8 DQO and SAP continue to fall behind schedule due to unresolved issues.
- Completion of the U-361 Settling Tank Disposal Strategy Study is at risk to finish this fiscal year due to lack of dedicated resources.

The unfavorable SV for Waste Site Remediation (-\$5.0M) is primarily due to:

- Aggressive field schedules, limited resources (nuclear operators and borehole drilling equipment) and competition from higher site priorities (groundwater and tank farms);
- Delayed start of the B-6 and S-13 boreholes to minimize safety impacts from high-risk borehole drilling during summer heat;
- Projecting carryover scope of \$6.5M.

The unfavorable SV for Reliability Projects (-\$0.4M) is due to:

- L-614, *Repeater Sites Safety Renovations*, construction delays pending approval of the MOA/Treatment Plan and vendor unavailability, L-606, *Overlay Road to Rattlesnake*, work scope on hold per RL direction, and impacts of additional work scope for Energy Policy Acts and Ten Year Site Plan per RL request.

## Schedule/Cost Performance (\$M), continued

### CTD Cost Performance (+\$9.5M/+3.1%):

The favorable cost variance (CV) for D&D (+\$4.3M) is primarily due to the following:

- Prior year cost overruns in 200-UW-1 U Zone Waste Site Remediation (-\$3.9M) resulting from:
  - Additional direct push sampling during field investigation to determine contamination levels.
  - Greater than planned effort to resolve Feasibility Study/Planning Package (FS/PP) comments and Remedial Design SAP.
  - Delays in barrier construction without reductions in staffing levels.
  - Lateral spread of contamination at 200-W-42 resulting in more waste containers being shipped to the Environmental Restoration Disposal Facility (ERDF) than planned.
- CP Surveillance and Maintenance prior year efficiencies in staffing and lower than planned corrective maintenance in prior years for 209E and B Plant (+\$3.2M).
- Prior and current year variance distributions (+\$5.0M).

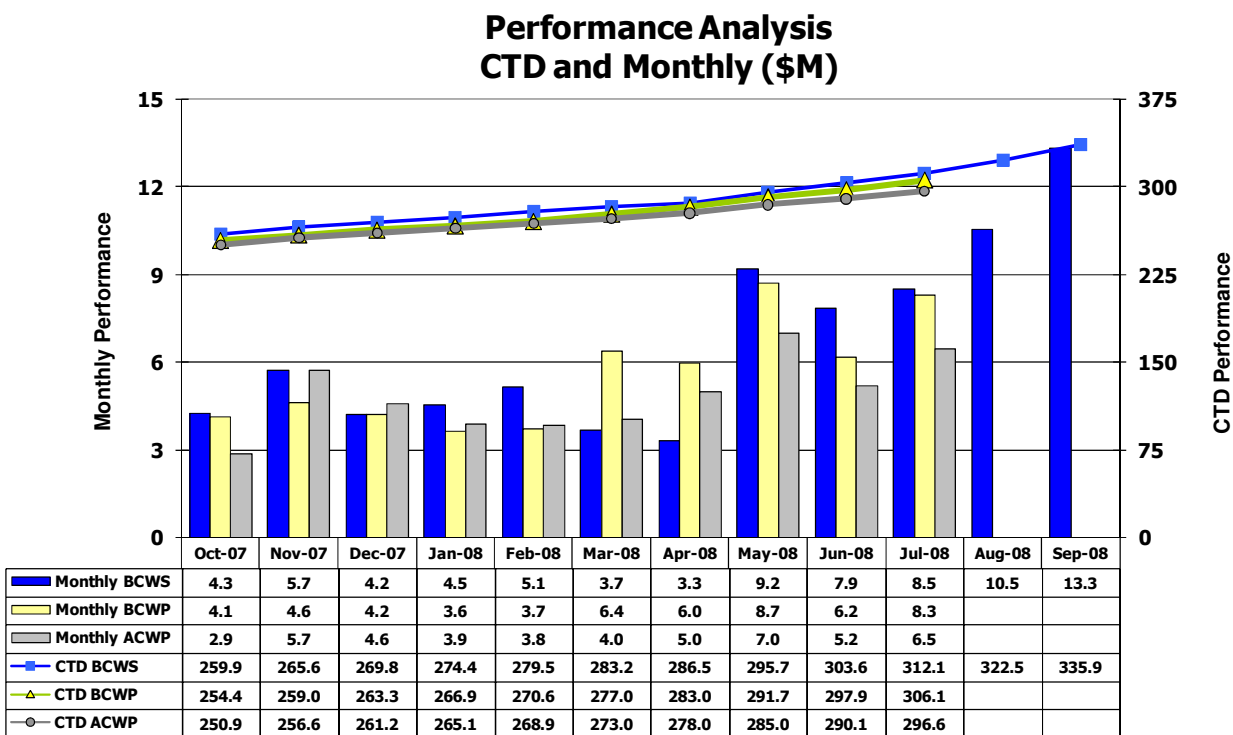
The favorable CV for Waste Site Remediation (+\$4.2M) is primarily due to:

- Prior year project management savings offset by prior year increased costs associated with high-risk boreholes;
- Lower than estimated material costs; and
- Favorable current and prior year variance distributions.

The favorable CV for Reliability Projects (+\$0.4) is primarily due to the following:

- Efficiencies and favorable bids in prior year electrical projects (+\$1.5M), road refurbishments (+\$0.7M).
- Capital equipment procurements (+\$1.0M).
- Project L-429, *12-Inch Water Line Mortar Lining Along 4th Street from Baltimore to Canton*, (+\$0.5M), and other miscellaneous underruns (+\$0.4M).
- Offset by increase in steel prices for prior year facility and water projects (-\$3.2M), and prior year telecommunication projects technology deployment (-\$0.5M).

The favorable CV for Closure Services (+\$0.6M) is within established thresholds.



## Milestone Achievement

*Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The FY 2008 Enforceable Agreement milestone information provided herein is based upon the current baseline including RL-approved changes. Changes from month-to-month in both the total number of milestones to be completed and in the forecast status of upcoming milestones are the result of Baseline Change Requests (BCRs) approved during the reporting period.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
CPDD-07-004	212-N nuclear facility hazard reduction and downgrade completed	PI	11/30/07	10/25/07		Complete
M-091-40L-016	M-91-40L.4.D Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008)	TPA	12/15/07	11/21/07		Complete
CPDD-07-008	Complete Construction of Project L-626, 100B-A Water System Enhancement	PI	12/31/07	12/11/07		Complete
M-091-40L-017	M-91-40L.5.A Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2008)	TPA	3/15/08	2/25/08		Complete
CPDD-07-0010	Complete phase one of the BC Cribs and Trenches Treatability Test Plan	PI	3/30/08	3/28/08		Complete
CPDD-08-001	241-U-361 Settling Tank Characterization and Sampling completed	PI	3/31/08	3/4/08		Complete
M-091-40L-018	M-91-40L.5.B Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2008)	TPA	6/15/08	5/30/08		Complete
CPDD-08-004	Complete phase 2a of the BC Cribs and Trenches Treatability Test Plan	PI	7/31/08	7/16/08		Complete
M-15-40D	Submit Revised Feasibility Study Report and Revised Proposed Plan for the 200-CW-5 OU	TPA	7/31/08	7/15/08		Complete
M-091-40L-019	M-91-40L.5.C Quarterly Burial Ground vent/substrate sampling results (4th Qtr 2008)	TPA	9/15/08		9/15/08	On schedule
CPDD-08-003	Complete characterization of potential contamination plume in the BC Cribs and Trenches	PI	9/30/08		9/30/08	On schedule
CPDD-08-006	Complete 231Z nuclear facility hazard reduction	PI	9/30/08		8/27/08	Ahead of schedule
CPDD-08-011	Excavate 20,000 tons of contaminated Soil at BC Control Area	PI	9/30/08		9/9/08	Ahead of schedule
CPRP-08-001	Complete construction for Project L-641, 273E Safety Enhancements	PI	10/31/08		9/12/08	Ahead of schedule